CPG's Responses to February 22, 2018 NOAA & USFWS CSTAG Comments on Lower Passaic Upper 9-Mile Interim Remedy Plan

	NOAA/USFWS Comment	CPG Response
	The Federal Trustees have reviewed the proposal provided to the US EPA by the CPG, dated November 27, 2017, and have expressed our concerns to US EPA Region 2 with the approach.	The Federal Trustees based their review on the November 2017 proposal. The CPG February 9, 2018 deliverable provided an updated proposal, revised RAOs and proposed remedial alternatives. The CPG's March 1 CSTAG stakeholder presentation included updated potential human health and ecological risk reductions. These are attached for the Trustees' convenience.
1.	The proposed approach will delay development of risk-based remedial goals. The proposed sediment cleanup value is orders of magnitude higher than the risk-based value identified for the lower 8.3 miles of the LPRSA.	The fact that remedial goals will not be established for the Interim Remedy (IR) is not a reason to reject this remedy. Though they are postponed, cleanup of the entire LPRSA will be accelerated. Accelerating the clean-up of the entire LPRSA with the Upper 9-Mile IR provides an earlier beneficial outcome leading to the restoration and recovery of the river's ecology. The proposed remedial action levels (RALs) are not surrogate remedial goals and their values should not be cause for alarm. The RALs achieve substantial initial risk reduction and accelerate recovery following construction of the IR. [see CPG's February 9, 2018 rationale for the RAL selection.] The IR will attain 2,3,7,8-TCDD and PCB levels much lower than the RALs and has a reasonable likelihood of reducing levels in biota to protective levels through ongoing recovery and therefore become the final remedy. The sediment concentrations at which this is achieved may differ from those of the lower 8.3 miles because the types and distribution of sediments in the upper 9 miles differ greatly from the lower 8.3 miles. The EPA documented the differences between the upper 9 miles and the lower 8 miles of the river in the March 2016 Lower 8.3-Mile Record of Decision (ROD) (e.g., Section 4.2, Pages 11-12) and February 2014 Remedial Investigation Report for the Focused Feasibility Study (e.g., Section 8, Pages 8-1 and 8-2).
2.	The concentration identified in the proposal is in part based on the	For wildlife receptors, the revised draft BERA did consider smaller exposure areas (2-mile reach segments for bird receptors) per EPA

	unrealistic and unprotective simplifying assumption that all receptors have exposure areas that encompass the entire upper 9 miles of the LPRSA.	request although the home range of wildlife receptors and/or their prey do not support the exclusive use of 2-mile segments. The revised draft BERA also considered limiting exposure areas in the freshwater portion for some wildlife receptors (>RM 6 for belted kingfisher and ≥RM 10 for mink and river otter). The HQs within these limited freshwater portions are similar to the HQs from the entire LPRSA. Further, estimated risk and SWAC reduction is expected to be similar whether the entire upper 9-mile area is considered an exposure area or smaller areas are considered (as was done in the revised draft BERA and in the Appendix to the revised draft BERA as requested by EPA in November 2017). Results of the smaller areas assessment were presented at the CSTAG meeting on March 1 and are included for the Federal Trustees' convenience. Finally, the Federal Trustees may recall that EPA relied on a simplifying assumption for its ERA for the lower 8-Mile FFS. Specifically, EPA stated that *"the FFS Study Area is characterized by substantial temporal and spatial variability of important physic-chemical factors, such as salinity, temperature, substrate composition and stability. Nonetheless, for the purposes of this BERA, the entire FFS Study Area was considered a single exposure point for a majority of the evaluated receptors* (Section 4.2.1 Appendix D, Lower 8-Mile FFS).
3.	The CPG proposes to evaluate performance of the interim action based solely on concentrations of contaminants in fish tissue; sediment concentrations would not be evaluated and water column information would not be used to assess performance.	Monitoring of fish, water and sediment are part of the IR proposal. Fish tissue and the water column are proposed as primary monitoring metrics, along with post-storm bathymetric surveys. Sediment monitoring is proposed as a diagnostic monitoring element if recovery does not proceed as anticipated, as part of an adaptive management framework. Because fish tissue concentrations reflect the water column and sediment concentrations, they provide an integrated metric of remedy performance. Water column concentrations are also useful as a performance metric, though they

		are more difficult to assess because they are impacted by tides and freshwater flow. Sediments are problematic as a performance metric because of the inherent spatial variability of sediment concentrations. Their best use is as part of any assessment aimed at diagnosing why the remedy has not met performance expectations.
4.	Conclusions regarding the protectiveness of the interim action would not be available until well into the future, delaying meaningful natural resource restoration of the LPRSA. An even less desirable potential outcome of the proposed interim action is one where natural resource restoration can never be conducted along the LPRSA but would need to be constructed far afield from where the natural resource injuries occurred	The first point (protectiveness will not be known until well into the future, delaying meaningful natural resource restoration) seems to be more a general statement about the time it takes to proceed from remedy selection to having sufficient post-remedy data to assess remedy success, than a statement specific to the timeline for the upper 9-mile remedy process. For large sediment remedy projects, timelines from remedy selection to collection of sufficient post-remedy monitoring data (data at least 5 years post-remedy) to assess remedy success are usually 10 years or longer. For example, the timeline for completing the Lower 8-Mile Remedy is the mid to late 2020s with post-remedy monitoring occurring afterward. The timeline proposed for the upper 9-mile IR falls well within the timeframe expected for a project of this magnitude. Further, the proposed Upper 9-Mile IR, conducted in coordination with the 8.3-Mile Remedial Action, is expected to accelerate recovery of the entire LPR and make natural resource restoration occur sooner throughout the LPRSA. For the second point (natural resource restoration may never occur in the upper 9 miles because post-remedy conditions will never be protective), a distinction must be made between general restoration (i.e., improved ecological conditions) and the implementation of NRD-related natural resource restoration projects. • Improved Ecological Conditions - please refer to CPG's response to Comment #2 on the expected risk reduction for the proposed IR. Much of the area addressed by the Upper 9-Mile IR will address areas such as shoals where forage fish feed and

		mudflats where birds and mammals are most likely to feed or contact sediment. Expected reductions in SWAC and ecological risk indicate significantly better conditions after the IR (i.e., "meaningful restoration") which the local flora and fauna will benefit from whether NRD-related restoration projects are completed or not. • NRD-Related Restoration - The Federal Trustees suggest that no NRD-related restoration can occur in the LPRSA until protective conditions are attained. This requirement applies to the Lower 8 Miles as well as the Upper 9. Given the projections for the lower 8-mile remedy outlined below, it is unclear when this would occur. The Lower 8-Mile ROD, a project in which the Federal Trustees concurred, states that post-remedy concentrations of multiple COCs will remain above their respective RGs. For example, the ecologically-based remedial goals established by EPA in the ROD are 74 ug/kg for mercury and 0.3 ug/kg for DDT. The ROD states on page 63 that mercury sediment concentrations in the lower 8.3 miles are predicted to reach approximately 700 ug/kg in 2060, which is approximately ten times higher than the remediation goal. For DDT, the predicted sediment concentration in the lower 8.3 miles is approximately 30 ug/kg, which is approximately 100 times higher than the remediation goal. Furthermore, in 2060, Total PCBs and 2,3,7,8 TCDD sediment concentrations in the lower 8.3 miles will remain above remediation goals. For Total PCBs, the predicted sediment concentration is six times higher than the remediation goal and 2,3,7,8-TCDD will remain slightly above the remedial goal. EPA goes on to state in the ROD that *"its' modeling results also show that, after bank-to-bank remediation of the lower 8.3 miles, incoming COCs from above Dundee Dam, from Newark Bay and from the Lower Passaic River above RM 8.3 will*

		gradually recontaminate the new riverbed surface". Therefore, based on EPA's modeling, protective conditions would not be attained until 2060 or beyond, given sediment concentrations are projected to be elevated above remediation goals (Lower 8.3-Mile ROD Figures 19-22). The Federal Trustees should better explain or define the conditions they envision when meaningful NRD-related restoration can occur.
	The Federal Trustees strongly support the US EPA's current approach to investigation of the LPRSA and encourage the US EPA not to change their technically-sound risk-based approach to one that will delay the process of achieving a remedy that is protective of human health and the environment.	The proposed Upper 9-Mile IR is consistent with EPA guidance and policy. The CPG has worked closely with EPA to address EPA's input and develop the IR; for example, the IR was expanded to include sediment to RM 15 that exceeds the proposed RALs. The goal of protection of human health and the environment is attained earlier by accelerating the clean-up of the entire LPRSA with the Upper 9-Mile IR.